

## ABSTRACT OF THE DISCLOSURE

A stabilized hemoglobin solution is contacted with polymerizing agent. The stabilized hemoglobin solution includes stabilized tetrameric hemoglobin. At least a portion of the stabilized tetrameric hemoglobin is polymerized by reaction with the polymerizing agent, thereby producing a polymerized hemoglobin solution. In one embodiment, the stabilized hemoglobin solution includes a filtrate formed by filtrating polymerized solution of native hemoglobin through a filter having a molecular weight cut off of about 100 kD.